WHAT IS CLAIMED:

1.   A transmitter, comprising:

an encoder to encode and disassociate data; and

an adaptive subcarrier modulator coupled to the encoder to adaptively select one or more subcarrier modulation schemes based on at least one condition of a communication channel.

2.   The transmitter of claim 1, wherein the encoder includes:

a low density parity check (LDPC) portion.

3.   The transmitter of claim 2, wherein the LDPC portion includes:

a plurality of bit nodes to receive the data, and

a plurality of check nodes selectively connected to the plurality of bit nodes.

4.   The transmitter of claim 1, wherein the adaptive subcarrier modulator implements an adaptive bit loading (ABL) modulation scheme.

5.   The transmitter of claim 1, wherein the transmitter does not include an interleaver.

6.   The transmitter of claim 1, further comprising:

a media access controller coupled to the encoder.

7.   The transmitter of claim 1, further comprising:

an orthogonal frequency division multiplexing (OFDM) physical layer interface coupled to an output of the adaptive subcarrier modulator.

8.   A receiver, comprising:

an orthogonal frequency division multiplexing (OFDM) physical layer interface; and

a forward error correction (FEC) decoder coupled to the OFDM physical layer interface to implement low density parity checking.

9.   The receiver of claim 8, further comprising:

an adaptive subcarrier demodulator coupled between the FEC decoder and the OFDM physical layer interface.

10.   The receiver of claim 8, wherein the adaptive subcarrier demodulator implements an adaptive bit loading (ABL) demodulation scheme.

11.   The receiver of claim 8, wherein the receiver does not include a deinterleaver.

12.   The receiver of claim 8, further comprising:

a media access controller coupled to the FEC decoder.

13.   An apparatus, comprising:

an orthogonal frequency division multiplexing (OFDM) physical layer interface; and

an adaptive subcarrier demodulator or an adaptive subcarrier modulator coupled to the

OFDM physical layer interface to implement adaptive bit loading (ABL); and

a decoder or an encoder coupled to the adaptive subcarrier demodulator or to the

adaptive subcarrier modulator to implement low density parity checking.

14.   The apparatus of claim 13, further comprising:

an amplifier coupled to the OFDM physical layer interface.

15.   The apparatus of claim 13, further comprising:

a media access controller coupled to the adaptive subcarrier demodulator or to the

adaptive subcarrier modulator.

16.   The apparatus of claim 13, wherein the apparatus does not include a

deinterleaver or an interleaver.

17.   A wireless communication system, comprising:

a transceiver, including:

a transmitter comprising:

an encoder with disassociative properties,

a subcarrier modulator coupled to the encoder to adaptively select or adjust one or more modulation schemes to substantially match a block of data to a group of orthogonal frequency division multiplexing (OFDM) symbols; and

a receiver coupled to the transmitter; and

an omni-directional antenna coupled to at least one of the transmitter and the receiver.

18.   The system of claim 17, wherein the encoder includes a low density parity checker.

19.   The system of claim 17, wherein the subcarrier modulator is arranged to adaptively select or adjust an adaptive bit loading (ABL) modulation scheme.

20.   The system of claim 17, wherein the transmitter does not include a deinterleaver.

21.   A method in an orthogonal frequency division multiplexing (OFDM) system, comprising:

encoding information with a low density parity check (LDPC) code;

detecting a channel condition for one or more OFDM subcarriers; and

selecting a modulation scheme for the encoded information on one or more OFDM subcarriers based on the detected channel condition.

22.   The method of claim 21 wherein the selecting includes:

selecting a modulation scheme for a group of two or more OFDM subcarriers based upon a detected channel condition for at least one of the two or more OFDM subcarriers.

23.   The method of claim 21 wherein the selecting includes:

selecting the modulation scheme via adaptive bit loading (ABL).